

6-21-32

DayBrite

T. M. Reg. U. S. Pat. Off.

Fluorescent Troffers



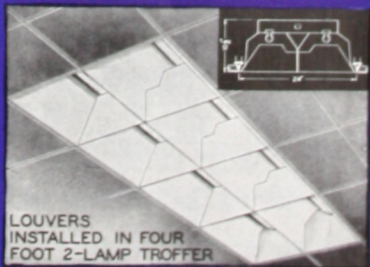
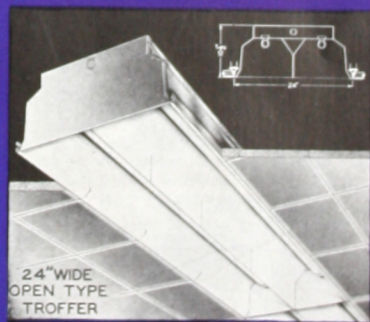
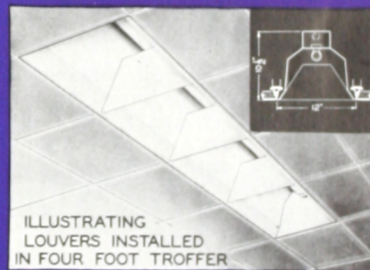
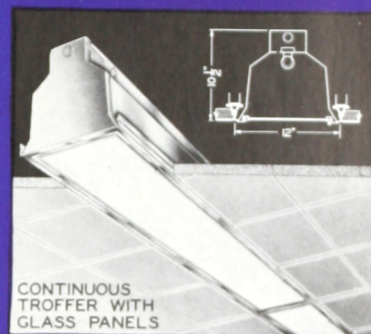
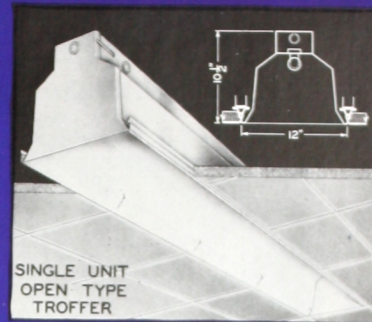
Bulletin F-47

The Day-Brite Fluorescent Troffers listed here are designed for use with acoustical ceilings of Tee-Bar snap-in block construction.

These Troffers are available for 48" 40-watt and 60" 100-watt lamps in single and double row units and in continuous lengths. Fill-in units and sections are available for 24" 20-watt, 36" 30-watt and 36" 65-watt lamps.

DayBrite Lighting Inc.

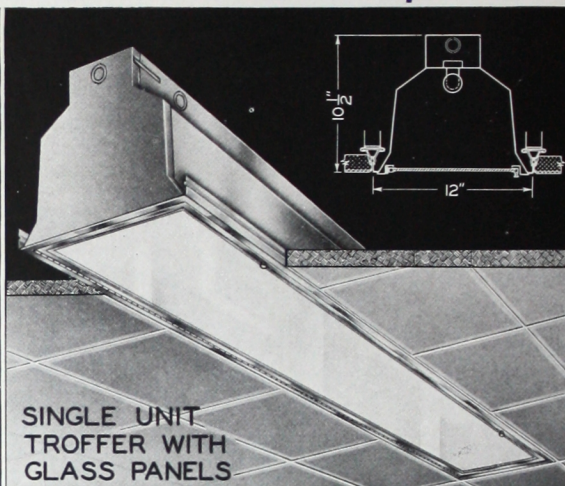
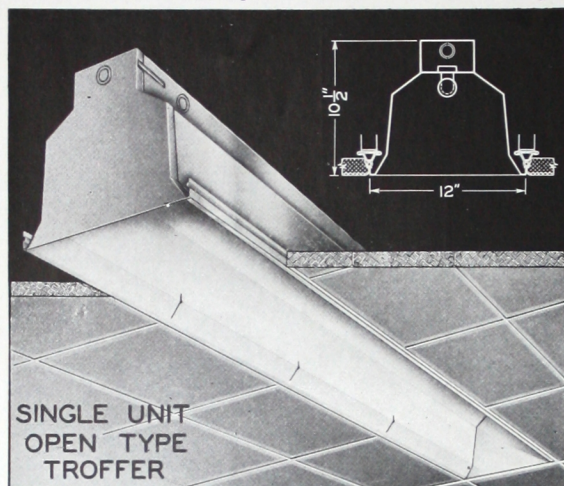
ST. LOUIS, MO., U.S.A.



Day-Brite One-Light Troffer Units

For Use With Acoustical Ceilings of Tee-Bar Snap-In Block Construction

For 48", 40-Watt and 60", 100-Watt Fluorescent Lamps



Day-Brite one-light troffers for 48", 40-watt and 60", 100-watt lamps are available in two basic types . . . (1) open type and (2) with high transmission diffusing glass panels in hinged frames.

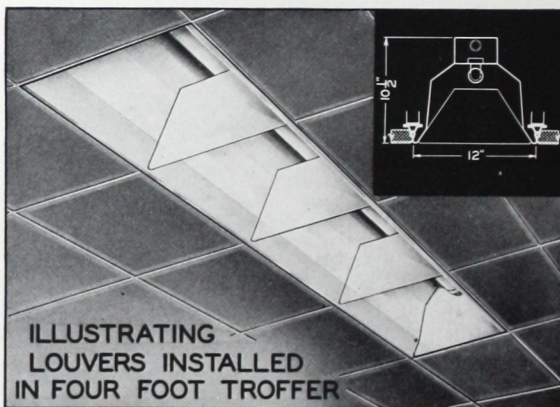
NOTE—For most economical installations these fixtures can be furnished in pairs for use with Tulamp ballasts which will provide 95-100% power-factor. When furnished in this manner, sockets, lamp starter and Tulamp ballast will be installed in one fixture and sockets and lamp starter only in the other. Connections between the two will have to be provided on installation. Single units wired with sockets, lamp starters and low or high power-factor ballasts are available for fill-in.

Finish—Interiors, louvers and all exposed trim finished in Day-Brite "SUPER-WHITE."

Wired Fixtures—Lead wires for service connections only are furnished in fixture. No extension provided for connections outside of unit.

★ Louver Fixtures—Open type fixtures are slotted on sides to accommodate louvers which can be installed or removed any time after installation. For relamping, or access to control equipment, louvers do not have to be removed entirely. They are designed so that they can slip out of one side and hinge at the other.

LOUVERS



LOUVERS—Open type fixtures are slotted at 12" intervals to accommodate louvers. Three louvers are required for 4 ft. units and four louvers for 5 ft. units. Specify number of louvers required. See listing in schedule.

Schedule S Discounts

For Lamps		Length of Box	TO BE ORDERED IN PAIRS				Single Wired Units with One-Lamp Ballasts, Lamp Starters and Sockets	
			Wired Units with Tulamp High P-F Ballasts, Lamp Starters and Sockets		Unwired Units with Sockets and Lamp Starters Only			
No.	Size		Catalog No.	Approx. Weight	Catalog No.	Approx. Weight	Catalog No.	Approx. Weight
OPEN TYPE FIXTURES								
1	48"— 40w	48"	42100	30 lbs.	42102	22 lbs.	42104	26 lbs.
1	60"—100w	60"	52100	43 lbs.	52102	27 lbs.	52104	38 lbs.
FIXTURES WITH GLASS PANELS								
1	48"— 40w	48"	42101	44 lbs.	42103	36 lbs.	42105	40 lbs.
LOUVERS — Catalog No. 9923 . . . for use with Open Type Troffers								

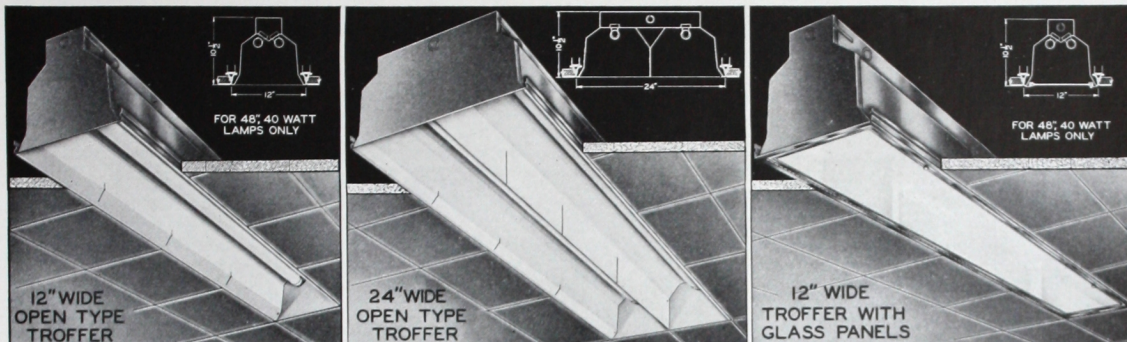
LOUVERS — Catalog No. 9923 . . . for use with Open Type Troffers

WIRED FOR 110-125 VOLT A.C. OPERATION. 208 AND 220 VOLT EQUIPMENT CAN BE FURNISHED ON REQUEST Lamps Are Not Included

Day-Brite Two-Light Troffer Units

For Use With Acoustical Ceilings of Tee-Bar Snap-In Block Construction

For 48", 40-Watt and 60", 100-Watt Fluorescent Lamps



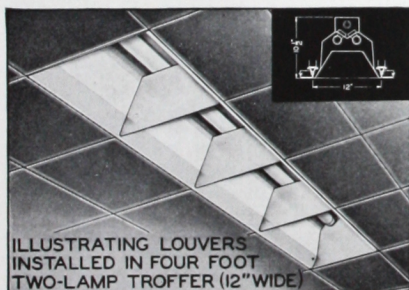
These troffer units accommodate two lamps parallel. They are available in three basic types . . . (1) open type 12" wide (slotted so that louvers can be installed if desired), (2) open type 24" wide (slotted so that louvers can be installed if desired), and (3) fixtures 12" wide with high transmission diffusing glass panels in hinged frames. 12" wide fixtures listed for 48", 40-watt lamps only and 24" wide fixtures listed for 48", 40-watt and 60", 100-watt lamps.

Fixtures are wired and include Tulamp high power-factor ballasts, sockets and lamp starters.

Wired Fixtures—Lead wires for service connections only are furnished in fixture. No extension provided for connections outside of unit.

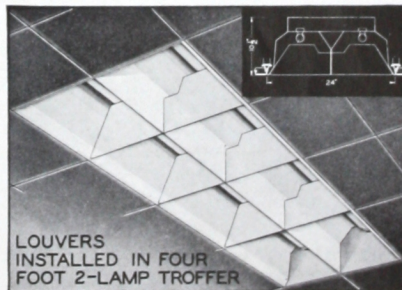
Finish—Interiors, louvers and all exposed trim finished in Day-Brite "SUPER-WHITE."

LOUVERS FOR USE WITH OPEN TYPE FIXTURES



LOUVERS—Open type fixtures are slotted at 12" intervals to accommodate louvers. Three louvers are required for 4 ft. units and four louvers for 5 ft. units. Specify number of louvers required. See listing in schedule.

See page 2 (*) for Louver details.



Schedule S Discounts

For Lamps		Length of Box	Width of Box	Wired Units with Tulamp High P-F Ballasts, Lamp Starters and Sockets	
No.	Size			Catalog No.	Approx. Weight
OPEN TYPE FIXTURES — 12" WIDE					
2	48"—40w	48"	12"	42206	31 lbs.
OPEN TYPE FIXTURES — 24" WIDE					
2	48"—40w	48"	24"	42200	51 lbs.
2	60"—100w	60"	24"	52200	68 lbs.
FIXTURES WITH GLASS PANELS — 12" WIDE					
2	48"—40w	48"	12"	42201	45 lbs.
LOUVERS—Cat. No. 9923—for use with 12" wide Open Troffers.					
LOUVERS—Cat. No. 9924—for use with 24" wide Open Troffers.					



WIRED FOR 110-125 VOLT A.C. OPERATION. 208 AND 220 VOLT EQUIPMENT CAN BE FURNISHED ON REQUEST
Lamps Are Not Included

Day-Brite Lighting, Inc., St. Louis, Mo., U. S. A.

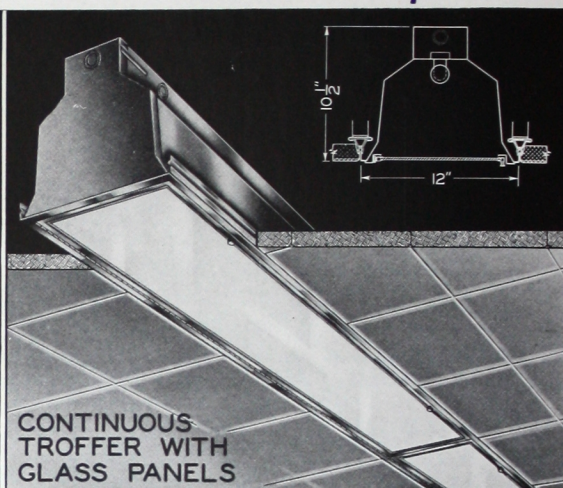
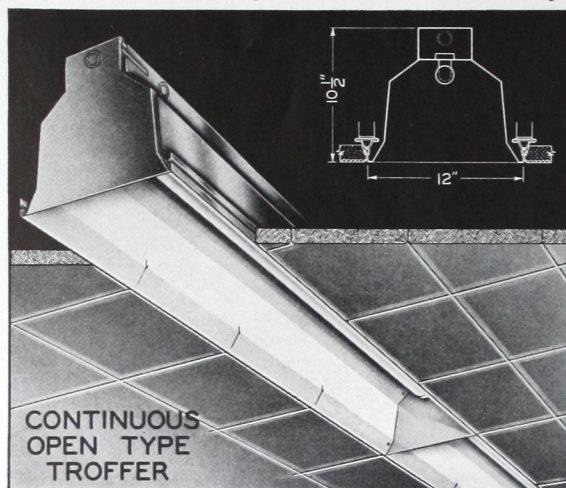
Bulletin F-47 — Page 3

10 91-8900 T2F

Continuous One-Light Troffers

For Use With Acoustical Ceilings of Tee-Bar Snap-In Block Construction

For 48", 40-Watt and 60", 100-Watt Fluorescent Lamps



These continuous troffers for one row of lamps are available in two basic types . . . (1) open (slotted so that louvers can be installed if desired), and (2) with high transmission diffusing glass panels in hinged frames.

A continuous fixture is made up of sections measuring 4 ft. or 5 ft. in length depending on whether the 40-watt or the 100-watt lamp is used. These sections are connected together with coupling plates which are listed below. **One coupling plate required for each fixture joint.**

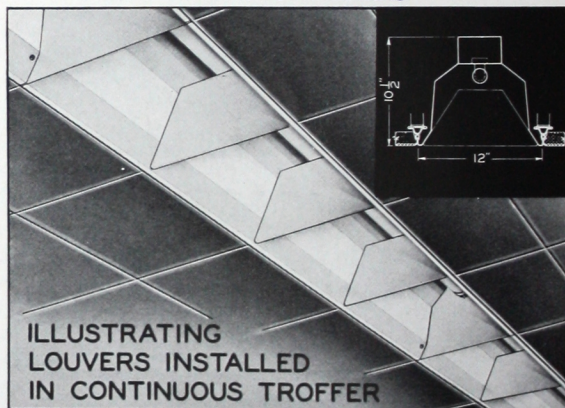
Five sections are listed in schedule and illustrated on the next page. They can be combined to make up complete continuous fixtures of any length. Installation data sketches on next page illustrate a few of the possible combinations.

Wired Fixtures — Lead wires for service connections only are furnished in fixture. No extension provided for connections outside of unit.

Finish—Interiors, louvers and all exposed trim finished in Day-Brite "SUPER-WHITE."

Caution — When installing continuous fixtures, check to make sure that they are exactly 4 ft. on center (for 4-ft. sections) and 5 ft. on center (for 5-ft. sections).

LOUVERS



LOUVERS — Open type fixtures are slotted at 12-inch intervals to accommodate louvers. Three louvers are required for 4-ft. sections and four louvers for 5-ft. sections. Specify number of louvers required. See listing in schedule.

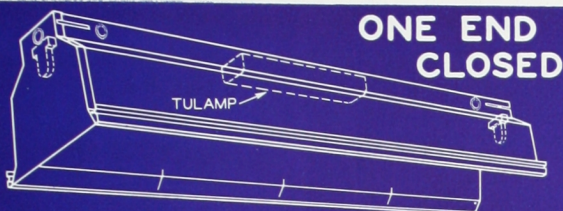
See page 2 (★) for Louver details.

Schedule S Discounts

For Lamps			TO BE ORDERED IN PAIRS							Single Wired Sections with One-Lamp Ballasts, Lamp Starters and Sockets	
			Wired Sections with Tulamp High P-F Ballasts, Lamp Starters and Sockets			Unwired Sections with Sockets and Lamp Starters Only					
			ONE END CLOSED	BOTH ENDS OPEN	Approx. Shipping Weight	ONE END CLOSED	BOTH ENDS OPEN	Approx. Shipping Weight			
No.	Size	Length of Box	Catalog No.	Catalog No.	Weight	Catalog No.	Catalog No.	Weight	Catalog No.	Weight	
OPEN TYPE FIXTURES											
1	48"—40w	48"	42100CE	42100CO	28 lbs.	42102CE	42102CO	20 lbs.	42104CE	25 lbs.	
1	60"—100w	60"	52100CE	52100CO	41 lbs.	52102CE	52102CO	25 lbs.	52104CE	37 lbs.	
FIXTURES WITH GLASS PANELS											
1	48"—40w	48"	42101CE	42101CO	42 lbs.	42103CE	42103CO	31 lbs.	42105CE	39 lbs.	
COUPLING PLATE—Catalog No. 9921—for use in connecting sections together on continuous installations.											
LOUVERS—Catalog No. 9923—for use with Open Type Troffers.											

WIRED FOR 110-125 VOLT A.C. OPERATION. 208 AND 220 VOLT EQUIPMENT CAN BE FURNISHED ON REQUEST. Lamps Are Not Included

Continuous One-Light Troffer INSTALLATION DATA



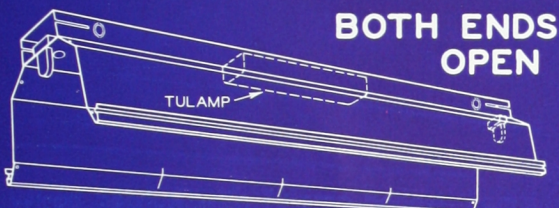
Wired Section with Tulamp Ballast, Lamp Starter and Sockets

No. 42100CE — 4-foot Section — Open Type Fixture
No. 52100CE — 5-foot Section — Open Type Fixture
No. 42101CE — 4-foot Section — With Glass Panels



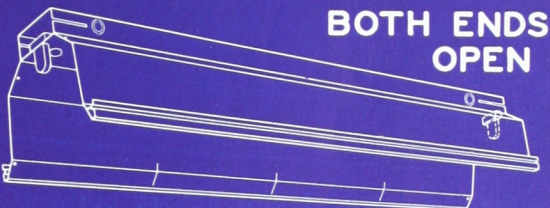
Unwired Section with Sockets and Lamp Starter Only

No. 42102CE — 4-foot Section — Open Type Fixture
No. 52102CE — 5-foot Section — Open Type Fixture
No. 42103CE — 4-foot Section — With Glass Panels



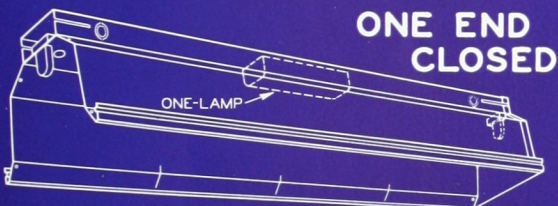
Wired Section with Tulamp Ballast, Lamp Starter and Sockets

No. 42100CO — 4-foot Section — Open Type Fixture
No. 52100CO — 5-foot Section — Open Type Fixture
No. 42101CO — 4-foot Section — With Glass Panels



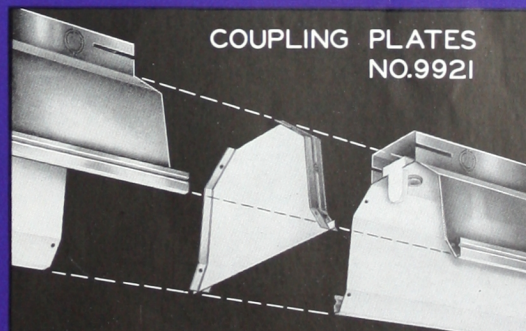
Unwired Section with Sockets and Lamp Starter Only

No. 42102CO — 4-foot Section — Open Type Fixture
No. 52102CO — 5-foot Section — Open Type Fixture
No. 42103CO — 4-foot Section — With Glass Panels

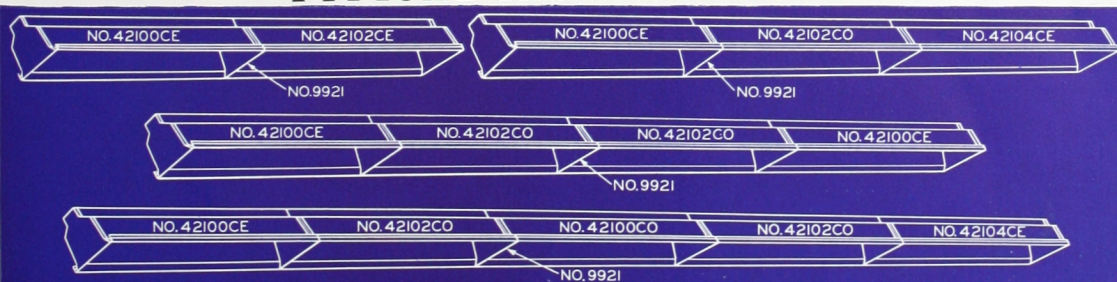


Wired Section with One-Lamp Ballast, Lamp Starter and Sockets

No. 42104CE — 4-foot Section — Open Type Fixture
No. 52104CE — 5-foot Section — Open Type Fixture
No. 42105CE — 4-foot Section — With Glass Panels



TYPICAL INSTALLATIONS

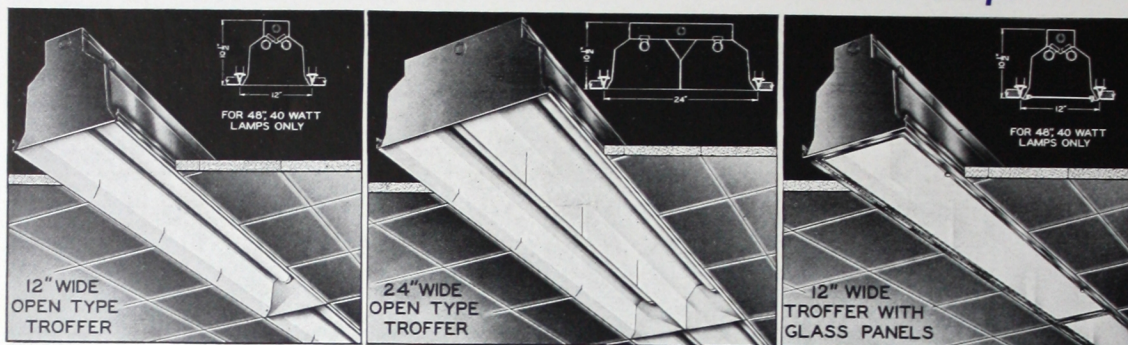


CONTINUOUS INSTALLATIONS OF ANY LENGTH CAN BE ASSEMBLED FROM THE SECTIONS SHOWN ABOVE

CAUTION—When installing continuous fixtures, check to make sure that they are exactly 4-ft. on center (for 4-ft. sections) and 5-ft. on center (for 5-ft. sections).

Continuous Two-Light Troffers

For Use With Acoustical Ceilings of Tee-Bar Snap-In Block Construction
For 48", 40-Watt and 60", 100-Watt Fluorescent Lamps



These continuous troffers accommodate two lamps parallel. They are available in three basic types . . . (1) open type 12" wide, (2) open type 24" wide and (3) fixtures 12" wide with high transmission diffusing glass panels in hinged frames. 12" wide fixtures listed for 48", 40-watt lamps only and 24" wide fixtures listed for 48", 40-watt lamps only and 24" wide fixtures listed for 48", 40-watt and 60", 100-watt lamps.

A continuous fixture is made up of sections measuring 4 ft. or 5 ft. in length depending on whether the 40-watt or the 100-watt lamps are used. These sections are connected together with coupling plates which are listed in schedule below. **One coupling plate required for each fixture joint.**

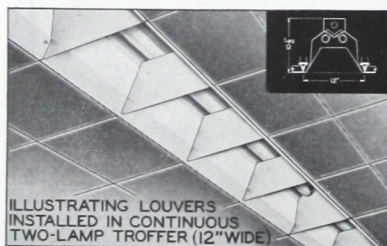
Two sections are listed in schedule and can be combined to make up complete continuous fixtures of any length. Installation data sketches below illustrate a few of the possible combinations.

Wired Fixtures—Lead wires for service connections only are furnished in fixture. No extension provided for connections outside of unit.

Finish—Interiors, louvers and all exposed trim finished in Day-Brite "SUPER-WHITE."

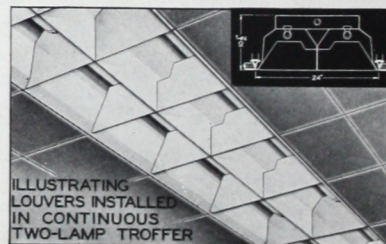
Caution—When installing continuous fixtures, check to make sure that they are exactly 4 ft. on center (for 4-ft. sections) and 5 ft. on center (for 5-ft. sections).

LOUVERS FOR USE WITH OPEN TYPE FIXTURES

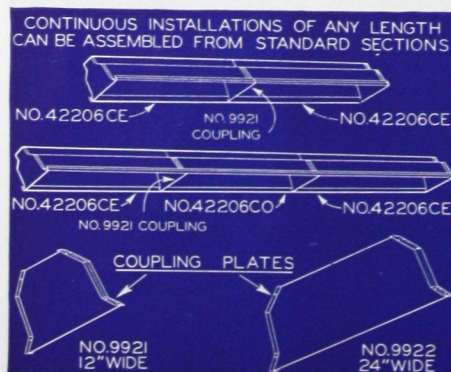


LOUVERS—Open type fixtures are slotted at 12" intervals to accommodate louvers. Three louvers are required for 4-ft. sections and four louvers for 5-ft. sections. Specify number of louvers required. See listing in schedule.

See page 2 (*) for Louver details.



Schedule S Discounts



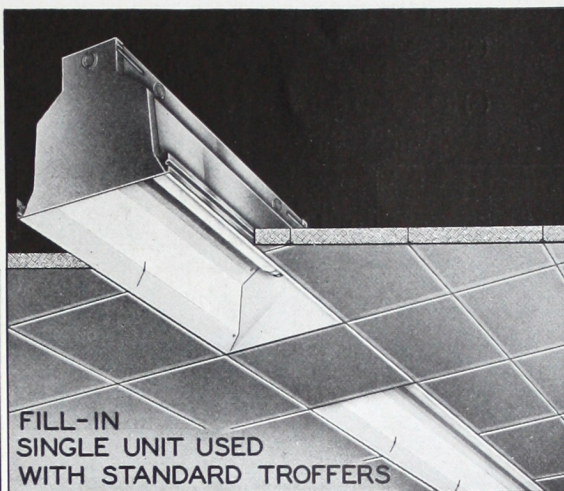
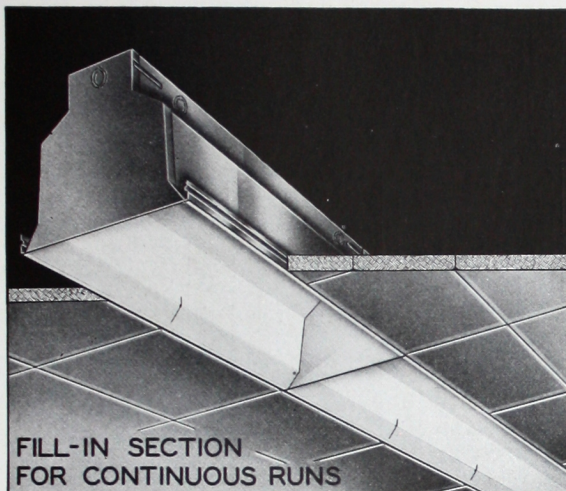
For Lamps		Length of Box	Width of Box	Wired Sections with Tulamp High Power-Factor Ballasts, Lamp Starters and Sockets		
No.	Size			ONE END CLOSED	BOTH ENDS OPEN	Approx. Shipping
				Catalog No.	Catalog No.	Weight
OPEN TYPE FIXTURES — 12" WIDE						
2	48"—40w	48"	12"	42206CE	42206CO	30 lbs.
OPEN TYPE FIXTURES — 24" WIDE						
2	48"—40w	48"	24"	42200CE	42200CO	48 lbs.
2	60"—100w	60"	24"	52200CE	52200CO	65 lbs.
FIXTURES WITH GLASS PANELS — 12" WIDE						
2	48"—40w	48"	12"	42201CE	42201CO	44 lbs.
COUPLING PLATE—Catalog No. 9921—for 12" wide fixtures.						
COUPLING PLATE—Catalog No. 9922—for 24" wide fixtures.						
LOUVERS—Catalog No. 9923—for use with 12" wide Open Troffers.						
LOUVERS—Catalog No. 9924—for use with 24" wide Open Troffers.						

WIRED FOR 110-125 VOLT A.C. OPERATION. 208 AND 220 VOLT EQUIPMENT CAN BE FURNISHED ON REQUEST.
Lamps Are Not Included

Fill-In Troffer Units and Sections

For Use With Acoustical Ceilings of Tee-Bar Snap-In Block Construction

For 24", 20-Watt, 36", 30-Watt and 36", 65-Watt Fluorescent Lamps



These troffers, for 24", 20-watt, 36", 30-watt and 36", 65-watt lamps, are designed for installation where a shorter than standard length unit or section is required. Complete special size single units are listed for use with unit installations. Sections with one end open can be used for filling in on continuous runs. **Couplings should be ordered as required for continuous installations.** See listing in schedule.

Fixtures are wired and include ballasts, sockets and lamp starters.

Wired Fixtures — Lead wires for service connections only are furnished in fixture. No extension provided for connections outside of unit.

Finish — Interiors, louvers and all exposed trim finished in Day-Brite "SUPER-WHITE."

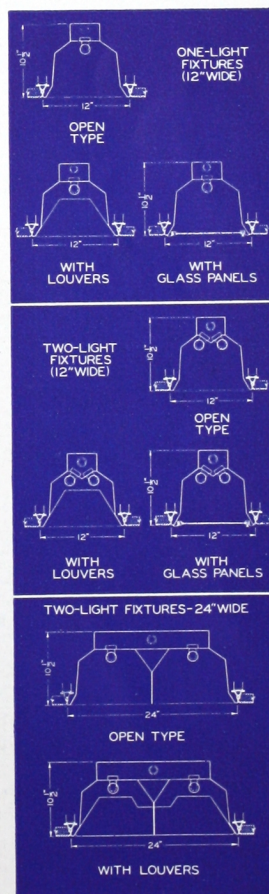
LOUVERS — Open type fixtures are slotted at 12" intervals to accommodate louvers. One louver required for 2-ft. units and two louvers for 3-ft. units. Specify number of louvers required. See listing in schedule.

See page 2 (★) for Louver details.

Schedule S Discounts

For Lamps		Length of Box	Width of Box	WIRED UNITS — BOTH ENDS CLOSED		WIRED SECTIONS — ONE END CLOSED	
No.	Size			Special Size Single Units		For Fill-In on Continuous Runs	
				Catalog No.	Approx. Shipping Weight	Catalog No.	Approx. Shipping Weight
OPEN TYPE FIXTURES — 12" WIDE							
1	24"—20w	24"	12"	22104	15 lbs.	22104CO	14 lbs.
1	36"—30w	36"	12"	32104	20 lbs.	32104CO	19 lbs.
1	36"—65w	36"	12"	62104	22 lbs.	62104CO	21 lbs.
2	24"—20w	24"	12"	22206	20 lbs.	22206CO	19 lbs.
2	36"—30w	36"	12"	32206	26 lbs.	32206CO	25 lbs.
OPEN TYPE FIXTURES — 24" WIDE							
2	24"—20w	24"	24"	22200	26 lbs.	22200CO	24 lbs.
2	36"—30w	36"	24"	32200	40 lbs.	32200CO	38 lbs.
2	36"—65w	36"	24"	62200	35 lbs.	62200CO	33 lbs.
FIXTURES WITH GLASS PANELS IN HINGED FRAME — 12" WIDE							
1	24"—20w	24"	12"	22105	22 lbs.	22105CO	21 lbs.
1	36"—30w	36"	12"	32105	30 lbs.	32105CO	29 lbs.
2	24"—20w	24"	12"	22201	27 lbs.	22201CO	26 lbs.
2	36"—30w	36"	12"	32201	36 lbs.	32201CO	35 lbs.
COUPLING PLATE—Catalog No. 9921—for 12" wide fixtures.							
COUPLING PLATE—Catalog No. 9922—for 24" wide fixtures.							
LOUVERS—Catalog No. 9923—for use with 12" wide Open Troffers.							
LOUVERS—Catalog No. 9924—for use with 24" wide Open Troffers.							

WIRED FOR 110-125 VOLT A.C. OPERATION. 208 AND 220 VOLT EQUIPMENT CAN BE FURNISHED ON REQUEST
Lamps Are Not Included



FIGURING FOOTCANDLE INTENSITIES FOR DAY-BRITE TROFFERS

- (1) Classify the room from Table Number 1. (This will give the ROOM INDEX LETTER based on the proportions of the room.)
- (2) Obtain the Coefficient of Utilization from Table Number 2 for the particular type of Troffer to be employed. Type A, B, C, D, or E.
- (3) Substitute this value (Coefficient of Utilization) in the formula shown below.

TABLE NUMBER 1

		MOUNTING HEIGHT ABOVE FLOOR (FEET)						
		7 and 7 1/2	8 and 8 1/2	9 and 9 1/2	10 to 11 1/2	12 to 13 1/2	14 to 16 1/2	17 to 20
ROOM WIDTH (FEET)	ROOM LENGTH (FEET)	ROOM INDEX						
10 (9 1/2-10 1/2)	10-14 14-20 20-30 30-42 42-Up	G G F F E	H H G G F	H G G G G	H H H H H			
12 (11-12 1/2)	10-14 14-20 20-30 30-Up	G F F E	H G G F	H G G G	H H H H			
14 (13-15 1/2)	14-20 20-30 30-42 42-60 60-Up	F F F E D	G G G F E	H G G F F	H H G G G	H H H H		
17 (16-18 1/2)	14-20 20-30 30-42 42-60 60-Up	E F D D D	F F E D D	G F F F E	H G G G G	H H H H	H G G G	H
20 (19-21 1/2)	20-30 30-42 42-60 60-Up	D D D C	E E D D	F F E E	G F F F	H G G G	H H G G	H
24 (22-26)	20-30 30-42 42-60 60-90 90-Up	D C C C C	E D D D D	F F D D D	G G E F E	H G G F F	H H G G G	H
30 (27-33)	30-42 42-60 60-90 90-Up	C C B B	D C C C	D D C C	E D D D	F F F F	G H H H	H
36 (34-39)	30-42 42-60 60-90 90-Up	B B A A	C C C B	D D C C	E D C C	F F E D	H G F F	H
42 (40-45)	42-60 60-90 90-Up	A A A	B B B	C C C	C D D	E F D	F G G	F
50 (46-55)	42-60 60-90 90-Up	A A A	A A A	B B A	C C C	D D C	E F F	F
60 (56-67)	60-90 90-140 140-Up	A A A	A A A	A A A	B B B	C C C	D C C	D
75 (68-90)	60-90 90-140 140-Up	A A A	A A A	A A A	A A A	B B B	C C B	D
90 or more	60-90 90-140 140-Up	A A A	A A A	A A A	A A A	B A A	C B C	D

TABLE NUMBER 2

Type	CEILING WALLS ROOM INDEX	75% COEFFICIENTS OF UTILIZATION					
		50%	30%	10%	50%	30%	10%
ONE ROW TROFFER Type "A" T-12, 40-Watt Lamp	H G F E D C B A	.45 .48 .50 .55 .59 .60 .63 .64	.41 .45 .47 .53 .57 .58 .61 .62	.39 .43 .45 .50 .55 .56 .59 .60	.44 .47 .49 .54 .58 .59 .62 .63	.41 .45 .47 .51 .56 .57 .60 .61	.39 .43 .45 .49 .54 .55 .58 .60
ONE ROW TROFFER Type "B" T-12, 40-Watt Lamp	H G F E D C B A	.43 .46 .48 .52 .56 .57 .60 .61	.39 .43 .45 .50 .54 .55 .58 .59	.37 .41 .43 .48 .52 .53 .56 .57	.42 .45 .47 .51 .55 .56 .59 .60	.39 .43 .45 .49 .53 .54 .57 .58	.37 .41 .43 .47 .51 .52 .55 .57
ONE ROW TROFFER Type "C" T-12, 40-Watt Lamp	H G F E D C B A	.40 .43 .45 .48 .52 .53 .56 .57	.36 .40 .42 .47 .50 .51 .54 .55	.34 .38 .40 .45 .48 .49 .52 .53	.39 .42 .44 .49 .52 .53 .56 .56	.36 .40 .42 .46 .49 .50 .53 .54	.34 .38 .40 .44 .47 .48 .51 .53
ONE ROW TROFFER Type "D" T-17, 100-Watt Lamp	H G F E D C B A	.41 .43 .45 .50 .53 .54 .57 .58	.37 .41 .42 .48 .51 .52 .55 .56	.35 .39 .41 .45 .49 .50 .53 .54	.40 .42 .44 .49 .52 .53 .56 .57	.37 .41 .42 .46 .49 .50 .53 .54	.35 .39 .41 .44 .47 .48 .51 .52
ONE ROW TROFFER Type "E" T-17, 100-Watt Lamp	H G F E D C B A	.39 .41 .43 .48 .50 .51 .54 .55	.35 .39 .40 .46 .49 .50 .52 .53	.33 .37 .39 .43 .47 .48 .50 .51	.38 .40 .42 .47 .49 .50 .53 .54	.35 .39 .40 .44 .47 .48 .51 .52	.33 .37 .39 .42 .44 .47 .50 .51

Figuring Intensities for Two-Light Troffer Installations
Types A, B and C for two 40-watt lamps in 12" wide body, multiply footcandle intensity by 1.9.

Types A and B for two 40-watt lamps in 24" wide body, multiply footcandle intensity by 2.0.

Types D and E for two 100-watt lamps in 24" wide body, multiply footcandle intensity by 2.0.

FORMULA

$$\text{INITIAL FOOTCANDLES} = \frac{\text{COEFFICIENT OF UTILIZATION} \times \text{LAMP LUMENS}^*}{\text{AREA IN SQ. FT. PER LAMP}}$$

$$\text{INITIAL FOOTCANDLES} \times 75\% \text{ MAINTENANCE} = \text{AVERAGE MAINTAINED FOOTCANDLES}$$

RULE OF THUMB FOR TYPE A, B AND C

Small Rooms Such as Private Offices 15-18 FC. For Each Watt Per Sq. Ft.
Average Offices (Approx. 20 x 40 ft.) 22-24 FC. For Each Watt Per Sq. Ft.
Large Offices (Approx. 60 x 150 ft.) 27-28 FC. For Each Watt Per Sq. Ft.

For Type D, 20% Less. For Type E, 30% Less. For Type F, 35% Less.

*This is 4200 for the 60", 100-watt lamp and 2100 for the 48", 40-watt lamp.

Day Brite
LIGHTING, INC. ST. LOUIS, MO., U.S.A.

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